

# **Summary of Devils Lake Flooding Issues Affecting the Stump Lake Area**

U.S. EPA, Region 8, Environmental Justice Program

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As part of the EPA's "Cooperative Agency" agreement with the St. Paul District of the U.S. Army Corps of Engineers (COE) for preparation of NEPA documentation for the Devils Lake Emergency Outlet, Region 8's Environmental Justice Program has been in the process of collecting data from focused telephone interviews on the Emergency Outlet.<sup>1</sup> During the interview process, a number of respondents in the Devils Lake area have expressed views on water management options other than the proposed west-end outlet plan. Below is a brief compilation of comments and perceptions of study participants with regard to impacts on Stump Lake and the surrounding area. This information represents data collected from phone interviews with respondents from all areas of the Devils Lake Basin collected between February and October, 1999.

Executive Order #12898, "Federal Actions to Address Environmental Justice in Minority and Low Income Populations" (February, 1994), mandates that federal agencies address environmental justice considerations with regard to the development of federally funded projects and regulation of existing sites. Environmental Justice is defined as the fair treatment of people of all races and incomes with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no person or group of people should shoulder a disproportionate share of negative environmental impacts resulting from the execution of environmental programs. Including environmental justice concerns prior to siting and project development decisions can help to reverse this trend and insure that these communities are not disproportionately impacted.

Environmental justice assessments include examining demographics, disproportionate impacts, stakeholder involvement, and benefits and burdens. Such assessments include examining the input that affected communities have with regard to the decision-making process, determining whether low-income or minority communities are disproportionately impacted by a proposed action, and who would benefit or shoulder burdens from the project. In this way, an assessment can be made prior to implementation that takes potential impacts to environmental justice communities into consideration.<sup>2</sup>

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<sup>1</sup> As part of the NEPA review process, the Environmental Justice Program within EPA, Region 8, has assisted the U.S. Army Corps of Engineers, St. Paul District, in providing input on environmental justice considerations for the proposed Devils Lake emergency outlet. The goal of this study is to examine the perceived impacts to various individuals and groups in the Devils Lake region, to determine whether a potential environmental justice situation exists with regard to the proposed emergency outlet, and to provide recommendations to the Army Corps based on the study's findings.

<sup>2</sup> Environmental Justice Communities are defined as low-income communities or minority communities, using information and guidelines provided by the U.S. Census Bureau.

## **Nelson County Community Characteristics and Demographics: Potential Environmental Justice Considerations**

Respondents included residents southeast of Devils Lake, an area that includes Stump Lake and Nelson County. Agriculture provides a livelihood for a majority of people in this area. Wheat, barley, canola, and sunflowers are staple crops. Small to medium-sized cattle operations are also prevalent in this area. Stump Lake houses one of the nation's oldest wildlife refuges, which could be impacted by a natural overflow into Stump Lake if Devils Lake gets too high. As in other areas of North Dakota, farmers struggle with depressed market prices for cattle and crops. Potential flooding is a concern for those with property close to Stump Lake.

According to 1990 U.S. Census figures, 65% of households in Nelson County report annual incomes of under \$25,000. In the State of North Dakota 53% of households report incomes of under \$25,000.<sup>3</sup> Estimates for February, 1999 indicate that the median household income for Nelson County is \$23,537.<sup>4</sup> Figures for 1996 estimate the numbers of people living in poverty in Nelson County at 433 (11.4% of the population).<sup>5</sup> In Nelson County, for agricultural sales, the net cash return per farm unit fell from \$564 in 1987 to \$471 in 1997, while the average net cash return per farm decreased sharply from \$7,251 in 1987 to \$1,027 in 1997.<sup>6</sup>

In 1990, 27% of the population in Nelson County was over 65 years of age.<sup>7</sup> The North Dakota Farm Service Agency estimates the average age for farmers in Nelson County in 1999 at 55. Other statistics indicate that the average age of farm operators in Nelson County has increased significantly in the last ten years. Numbers of farm operators between the ages of 25-35 dropped from 98 (in 1987) to 28 in 1997. Operators over the age of 70 have increased from 42 (in 1987) to 85 in 1997.<sup>8</sup> Elderly residents can be considered a "vulnerable population," for whom lack of access to critical services and other stressors (such as forced relocation and crop loss due to flooding) may present greater problems than for other age groups.

There are no significant percentages of minority populations in the county.

### **Responses from Follow-up Interviews (September and October, 1999)**

During the recent follow-up phase of the interviews (currently in progress), residents of Nelson County have expressed concern over a proposed plan to channel water from Devils Lake into Stump Lake. Aside from the overall effects of increased water level in the lake, such as seepage, bank erosion, water quality, loss of wildlife, etc., concerns have been expressed regarding the Stump Lake Park and City of Lakota water lines that will have to be relocated if lake levels increase. In addition, some residents of Nelson County have mentioned that Sheyenne

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<sup>3</sup> Data source: 1990 U.S. Census figures.

<sup>4</sup> Data source: NDSU Extension Service, Nelson County. Median income figure has a confidence level of 90%, with a range of \$23,555-\$26,701.

<sup>5</sup> Data source: NDSU Extension Service, Nelson County.

<sup>6</sup> Data source: Nelson County Agricultural Census, NDSU Extension Service, Nelson County.

<sup>7</sup> Data source: Nelson County Auditor's Office, based on 1990 U.S. Census Data.

<sup>8</sup> Data source: Nelson County Agricultural Census, NDSU Extension Service, Nelson County.

Rural Electric has lines that will have to be relocated if Stump Lake increases.

Some respondents are concerned that the State Water Commission (SWC) has not addressed these issues, by not fully including Nelson County in the decision making process, or by not addressing the feasibility or actual costs of utility line relocations. Well systems and sewer systems could also be seriously affected by seepage of Devils Lake water. Similarly, some residents have voiced the concern that the aquifer supplying the towns of Lakota and Pekin could be negatively impacted (from the standpoint of water quality) as a result of seepage of water channeled into Stump Lake.

More specific concerns raised include the fact that if Stump Lake rises to the proposed level of 1447 ft. (as a result of water channeled from Devils Lake), County Roads 23, 15, and 27 will be completely submerged. These roads are currently at an elevation of approximately 1438 ft., and are located approximately three-quarters of a mile to a mile from Stump Lake. Several Nelson County respondents have noted that if Stump Lake rises to this level, these roads would be almost ten feet under water and the county would be “cut in half,” so to speak, preventing access for much of the county to critical community and emergency services, including ambulance, fire crews, hospital access, bus routes, and other services.

Local farmers would also be directly impacted. It is estimated that over 10,000 acres of cropland would be lost to flooding, affecting individual livelihoods, as well as the tax base for Nelson County. In 1999, 75,000 acres was not planted this year, due to excess water. This number represents 16% of all cropland in Nelson County.<sup>9</sup> In addition, access to the grain elevator in Tolna would be severely restricted or rendered impossible for many farmers. It is felt that if county roads were under water, some farmers would have to drive over 30 miles to get to the grain elevator, and some would have to drive this distance to get to sections of their own farms.

Another concern voiced by residents is that the County Park would be completely inundated if the level of Stump Lake rises. It is felt that the proposed lake level would destroy over 270 acres of trees and possibly affect the water supply to the park.

These concerns mirror sentiments voiced in the earlier phase of the interview process (February through April, 1999), whereby respondents in Nelson County felt a lack of consideration of their views by the SWC and the COE, due to the fact that the county’s residents are small in number.

### **Responses from Initial Interviews (February through April, 1999)**

Taking into consideration respondents from all areas of the Devils Lake Basin, a small percentage from this study (7%) favor draining water from Devils Lake into Stump Lake. Larger numbers of respondents prefer an east-end outlet (15%), or do not support any kind of outlet project (14%) (Table 1).

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<sup>9</sup> Data source: NDSU Extension Service, Nelson County.

**Table 1. Support for Devils Lake Outlet Projects**

| <i>Description</i>  | <i>No.*</i> | <i>%</i> | <i>Total N</i> |
|---|-------------|----------|----------------|
| Supports an east-end outlet   | 15          | 33       | 46             |
| Doesn't support any kind of outlet                                  | 14          | 30       | 46             |
| Supports a west-end outlet  | 9           | 20       | 46             |
| Supports an inlet/outlet project (original Garrison Diversion plan) | 8           | 17       | 46             |
| Supports draining Devils Lake into Stump Lake                       | 7           | 15       | 46             |
| Don't know whether they support an outlet or not                    | 2           | 4        | 46             |
| Supports other type of outlet project                               | 1           | 2        | 46             |

\* Some respondents mentioned more than one preference

*Feedback from Nelson County Respondents on the Proposed Emergency Outlet and Other Devils Lake Water Management Options*

The following are comments from Nelson County respondents (from the first phase of the interviews) on various water management options. One Nelson County resident felt that if a west-end outlet was built, it would keep the county from receiving the natural overflow from Devils Lake to Stump Lake that may occur over time. Another respondent felt that if an east-end outlet was built to the Sheyenne River, it could stabilize the level of Stump Lake and allow for the development of a recreation area around the lake. In contrast, one small farm owner felt that Nelson County would be negatively impacted if an east-end outlet went in, causing flooding and an eventual decline in the overall population in the area. Another resident felt that their home would flood if water was put into Stump Lake with no outlet to the Sheyenne River. In general, respondents in the Stump Lake were not opposed to an outlet being built to the Sheyenne River, but saw many serious impacts to the option of only channeling water into Stump Lake without a corresponding outlet to the Sheyenne River.

All of the respondents in the Stump Lake area had additional comments on perceived impacts to themselves from the proposed west-end outlet. These included the view that an outlet would save roads in their area; a similar view that roads will be flooded *unless* an outlet goes in; the opinion that there may be less flooding than they have now if the west-end outlet is built; that letting water flow "naturally" from Devils Lake to Stump Lake would be bad news for them; and the question of whether there would be compensation for buildings flooded as a result of an outlet. A similar concern voiced by one respondent was that his yard would be 17-18' deep in water if an east-end outlet went in. Also mentioned was the opinion that an inlet/outlet through the east-end could provide stabilization for Stump Lake.

Forty-three percent of those in the Stump Lake area said that they had made their views known at the COE Devils Lake Emergency Outlet scoping meetings. An additional 43% did not feel that their views have been heard. An important finding was that 71% of those in the Stump Lake area felt that the COE did not care about their views, since their community is small in numbers. These respondents also reported feeling that they did not have much voice in the overall decision process. Forty-three percent of those in the Stump Lake area felt that the COE should have been open to real input from the public, many expressing the perception that the scoping process had been limited to the COE promoting its own agenda.

### *Specific Comments on Proposals Affecting Stump Lake*

Additional comments (from respondents in various areas of the lake basin) centered on the current proposal to channel water only into Stump Lake. These comments included the following:

- Disagrees strongly with the "Stump Dump" plan - we need an outlet to the Sheyenne;
- Putting water into Stump Lake without a corresponding outlet to the Sheyenne River would kill thousands of trees, and also affect the wildlife refuge;
- Don't just transfer water to Stump Lake and leave it there;
- Better to control eventual overflow from Devils Lake into Stump Lake, depending on rainfall levels;
- A channel from Stump Lake to Devils Lake might help if buying time is important;
- The Army Corp has reassured them that Benson County will be a part of the discussion regarding a channel to Stump Lake;
- It would not help environmentally if water overflows naturally with no control (problems with quality and quality);
- Feels that the Stump Lake option is not a good one – it's not long-term enough;
- A question of whether the Army Corp has the authority to do a channel from Devils Lake to Stump Lake - does this meet NEPA requirements?;
- The lake has tried to go through its natural outlet (at Stump Lake), but man-made structures have halted this natural flow;
- Upper basin drainage might make the overflow to Stump Lake happen more easily;
- Those in Devils Lake have more political clout (and they want a Stump Lake outlet);
- (As Nelson County residents) they were not consulted about recent plans to drain water into Stump Lake; they had to find out through the papers
- Many of Nelson County residents are older, which would prove an extreme hardship if access to necessary emergency and medical services were restricted;
- Doesn't the risk (to Nelson County residents) outweigh the benefit to those with a greater population and more political clout?

These comments and demographic factors point to the need for more in-depth investigation into the economic, social, and environmental impacts of the proposed Stump Lake project. The potential disproportionate impacts to low income and elderly populations mentioned in this summary may indicate the possibility of environmental justice issues resulting from this project.